



منظمة الأغذية
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COORDINATING WORKING PARTY ON FISHERY STATISTICS

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Review of Fishery Statistics

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CCSBT Report to CWP23

1. Intersessional Developments in Fisheries Statistics since CWP 22 (March 2007)

The principle developments in fisheries statistics within the CCSBT since CWP 22 have primarily been in relation to verification of catches and include:

- Implementation of a Catch Documentation System (commenced 1 January 2010);
- Implementation of a program for observation of SBT transshipments at sea (commenced 1 April 2009);
- Addition of an authorised record of SBT farms and SBT carrier vessels;
- Annual reporting of observed ERS interactions, including mortalities, and methods of scaling used to produce estimates of total ERS mortality.
- Annual reporting of the extent of compliance with ERS measures, under an agreed resolution on Compliance Action Plans.

2. Response to Questionnaire from CWP Secretariat

- i. The CCSBT does not currently maintain an IUU list.
- ii. Since 2006, the CCSBT Extended Scientific Committee has included estimates of past unreported catches from the longline fishery in its stock assessments and scenario modelling. The precise details of the estimates remain confidential, but come in part from a review of SBT product flow through the Japanese markets. The Extended Scientific Committee also includes an estimate for possible bias in catch weight estimates from the surface fishery in its assessments.
- iii. A list of scientific data to be provided by Member States is compiled each year by the Extended Scientific Committee. The scientific data required for 2010 is attached.
- iv. The CCSBT information in relation to the description of national statistical methods needs to be updated before providing to CWP.
- v. This has not yet been considered by the CCSBT, and will be considered at a later date.

Attachment 1**Requirements for the 2010 Data Exchange**

Catch effort and size data should be provided in the identical format as that were provided in 2009. If the format of the data provided by a member is changed, then the new format and some test data in that format should be provided to the Secretariat by 31 January 2010 to allow development of the necessary data loading routines.

Data listed in Attachment A should be provided for the complete 2009 calendar year plus any other year for which the data have changed. If changes to historic data are more than a routine update of the 2008 data or very minor corrections to older data, then the changed data will not be used until discussed at the next SAG/SC meeting (unless there was specific agreement to the contrary). Changes to past data (apart from a routine update of 2008 data) must be accompanied by a detailed description of the changes.

Prepared by the Secretariat

Type of Data to provide ¹	Data Provider(s)	Due Date	Description of data to provide
CCSBT Data CD	Secretariat	31 Jan 10	An update of the data (catch effort, catch at size, raised catch and tag-recapture) on the data CD to incorporate data provided in the 2009 data exchange and any additional data received since that time, including: <ul style="list-style-type: none"> • Tag/recapture data (<i>The Secretariat will provided additional updates of the tag-recapture data during 2010 on request from individual members</i>); • Update the unreported catch estimates using the revised scenario (S1L1) produced at SAG9.
New Zealand joint venture summary of observed trips	New Zealand	23Apr 10	New Zealand to provide the secretariat with a summary of observed trips, by vesselID, for New Zealand joint venture vessels. <p><i>Secretariat Comment: These data are required so that the Secretariat can provide NZ with a summary of Observed catch and effort data , which is required for NZ preparation of joint venture shot by shot data.</i></p>
Total catch by Fleet	all Members and Cooperating Non-Members (excluding Indonesia – which is specified later)	30 Apr 10	Raised total catch (weight and number) and number of boats fishing by fleet and gear. These data need to be provided for both the calendar year and the quota year.
Recreational catch	all Members and Cooperating Non-Members that have recreational catches	30 Apr 10	Raised total catch (weight and number) of any recreationally caught SBT if data are available. A complete historic time series of recreation catch estimates should be provided (unless this has previously been provided). Where there is uncertainty in the recreational catch estimates, a description or estimate of the uncertainty should be provided. <p>Australia noted in plenary that it was not able to provide Recreational catch data to the Data Exchange.</p>
SBT import statistics	Japan	30 Apr 10	Weight of SBT imported into Japan by country, fresh/frozen and month. These import statistics are used in estimating the catches of non-member countries.

¹ The text “**For MP/OM**” means that this data is used for both the Management Procedure and the Operating Model. If only one of these items appears (e.g. **For OM**), then the data is only required for the specified item.

Type of Data to provide ¹	Data Provider(s)	Due Date	Description of data to provide
Mortality allowance (RMA and SRP) usage	all Members (& Secretariat)	30 Apr 10	The mortality allowance (kilograms) that was used in the 2009 calendar year. Data is to be separated by RMA and SRP mortality allowance. If possible, data should also be separated by month and location.
Catch and Effort	all Members (& Secretariat)	23 Apr 10 (New Zealand) ² 30 Apr 10 (other members, South Africa & Secretariat) 31 July 10 (Indonesia)	Catch (in numbers and weight) and effort data is to be provided as either shot by shot or as aggregated data (New Zealand provides fine scale shot by shot data which is aggregated and distributed by the Secretariat). The maximum level of aggregation is by year, month, fleet, gear, and 5x5 degree (longline fishery) or 1x1 degree for surface fishery. Indonesia will provide estimates based on either shot by shot or as aggregated data from the trial Scientific Observer Program. <i>It was noted that with the implementation of two new statistical areas (areas 14 and 15), that catch and effort data should be provided with all fishing effort in these new areas regardless of whether SBT were caught (as is done for areas 1-10).</i>
Historical effort for areas 14 and 15)	Korea	30 Apr 10	The complete historic time series for areas 14 and 15 of all Members needs to be revised to provide full fishing effort in areas 14 and 15. <i>This was to be provided as part of the 2007 data exchange (before SAG8) by all Members who had fished in areas 14 and 15. Only one Member has yet to provide (or advise in relation to) this information.</i>

² The earlier date specified for New Zealand is so that the Secretariat will be able to process the fine scale New Zealand data in time to provide aggregated and raised data to members by 30 April.

Type of Data to provide ¹	Data Provider(s)	Due Date	Description of data to provide
Non-retained catches	All Members	30 Apr 10 (most Members) 31 July 10 (Indonesia)	<p>The following data concerning non retained catches will be provided by year, month, and 5*5 degree for each fishery:</p> <ul style="list-style-type: none"> • Number of SBT reported (or observed) as being non-retained; • Raised number of non-retained SBT taking into consideration vessels and periods in which there was no reporting of non-retained SBT; • Estimated size frequency of non-retained SBT after raising; • Details of the fate and/or life status of non-retained fish. <p>Indonesia will provide estimates based on either shot by shot or as aggregated data from the trial Scientific Observer Program.</p> <p>Australia noted in plenary that it can only provide raw data on Non-retained catches.</p>
Research and 'other' mortalities	Japan	30 Apr 10	<p>Research mortalities prior to 2001 and any other forms of mortalities up to 2006 that have not been provided as part of the data exchange. Data should be provided at 5*5 by month resolution if available, but otherwise at the best available resolution.</p> <p><i>This due date was set at SC11. Therefore as at 30 April 2010, Members will have had nearly 44 months to comply with this requirement. From this date, these "other" mortalities will be counted as part of the total catches in future global catch tables produced by the Secretariat.</i></p>
RTMP catch and effort data	Japan	30 Apr 10	<p>The catch and effort data from the real time monitoring program should be provided in the same format as the standard logbook data is provided.</p>
NZ joint venture catch and effort data at 1*1 spatial resolution	Secretariat	30 Apr 10	<p>Aggregated New Zealand catch and effort data, to 1*1 degrees of resolution instead of 5*5 degrees. The Secretariat will produce and provide these data to Japan only for use in the $W_{0.5}$ and $W_{0.8}$ CPUE indices produced by Japan. <i>Other members may request approval from New Zealand to be provided with access to these data for necessary analyses.</i></p>

Type of Data to provide ¹	Data Provider(s)	Due Date	Description of data to provide
NZ joint venture catch and effort with Observers	Secretariat	28 Apr 10	A summary of NZ joint venture catch and effort data, to be provided to New Zealand only, specifying which shots had an observer on board.
New Zealand joint venture shot by shot data	New Zealand	30 Apr 10	Shot by shot data for New Zealand joint venture vessels in statistical areas 5 and 6 for 2009. These data should specify which shots had an observer on board. These data are only being provided to Japan and are for use in the new CPUE index.
Raised catch data for AU, NZ and KR catches	Australia, Secretariat	30 Apr 10	Aggregated raised catch data should be provided at a similar resolution as the catch and effort data. Japan and Taiwan do not need to provide anything here because they provide raised catch and effort data. New Zealand does not need to provide anything here because the Secretariat produces New Zealand's raised catch data from the fine scale data provided by New Zealand. Similarly, the Secretariat will be calculating and providing the raised catch data for Korea (based on raising Korea's catch effort data to its total catch).
Observer length frequency data	New Zealand	30 Apr 10	Raw observer length frequency data as provided in previous years.
Raised Length Data	Australia, Taiwan, Japan, New Zealand	30 Apr 10 (Australia, Taiwan, Japan) 7 May 10 (New Zealand) ³	Raised length composition data should be provided ⁴ at an aggregation of year, month, fleet, gear, and 5x5 degree for longline and 1x1 degree for other fisheries. Data should be provided in the finest possible size classes (1 cm). A template showing the required information is provided in Attachment C of CCSBT-ESC/0609/08.
RTMP Length data	Japan	30 Apr 10	The length data from the real time monitoring program should be provided in the same format as the standard length data is provided.

³ The additional week provided for New Zealand is because New Zealand requires the raised catch data that the Secretariat is scheduled to provide on 30 April.

⁴ The data should be prepared using the agreed CCSBT substitution principles where practicable. It is important that the complete method used for preparing the raised length data be fully documented.

Type of Data to provide ¹	Data Provider(s)	Due Date	Description of data to provide
Raw Size Data	Korea	30 Apr 10	Raw length/weight measurement data should be provided by Korea instead of raised length data because Korea does not yet have a suitable sample size to produce raised length data. <i>However, Korea is encouraged to improve its sample sizes of length frequency data in the future.</i>
Indonesian LL SBT age and size composition	Australia Indonesia	30 Apr 10	Estimates of both the age and size composition (in percent) is to be generated for the spawning season July 2007 to June 2008. Length frequency for the 2008 calendar year and age frequency for the 2007 calendar year is also to be provided. Indonesia will provide size composition in length and weight based on the Port-based Tuna Monitoring Program. Australia will provide age composition data according to current data exchange protocols.
Direct ageing data	All Members	30 Apr 10	Updated direct age estimates (and in some cases revised series due to a need to re-interpret the otoliths) from otolith collections. Data must be provided for at least the 2006 calendar year (see paragraph 95 of the 2003 ESC report). Members will provide more recent data if these are available. The format for each otolith is: Flag, Year, Month, Gear Code, Lat, Long, Location Resolution Code ⁵ , Stat Area, Length, Otolith ID, Age estimate, Age Readability Code ⁶ , Sex Code, Comments.
Trolling survey index	Japan	30 Apr 10	Estimates of the different trolling indices for the 2009/10 season (ending Jan 2010), including any estimates of uncertainty (e.g. CV).
Tag return summary data	Secretariat	30 Apr 10	Updated summary of the number tagged and recaptured per month and season.
Catch at age data	Australia, Taiwan, Japan, Secretariat	14 May 10	Catch at age (from catch at size) data by fleet, 5*5 degree, and month to be provided by each member for their longline fisheries. The Secretariat will produce the catch at age for New Zealand using the same routines it uses for the CPUE input data and the catch at age for the MP.

⁵ M1=1 minute, D1=1 degree, D5=5 degree.

⁶ Scales (0-5) of readability and confidence for otolith sections as defined in the CCSBT age determination manual.

Type of Data to provide ¹	Data Provider(s)	Due Date	Description of data to provide
Total Indonesian catch by month and % of Indonesian LL catch that is SBT	Indonesia	15 May 10	The 2009 catch of SBT in numbers and weight and the number of vessels fishing for SBT for each port and month. Also the 2009 total catch by weight of each species.
Catch Locations within EEZ	Indonesia	30 Apr 10	Information on Catch locations (latitude/longitude) within the Indonesian EEZ, recorded through the Scientific Observer Program.
Global SBT catch by flag and by gear	Secretariat	22 May 10	Global SBT catch by flag and gear as provided in recent reports of the Scientific Committee.
Raised catch-at-age for the Australia surface fishery For OM	Australia	24 May 10 ⁷	These data will be provided for July 2008 to June 2009 in the same format as previously provided.
Raised catch-at-age for Indonesia spawning ground fisheries. For OM	Secretariat	24 May 10	These data will be provided for July 2008 to June 2009 in the same format as on the CCSBT Data CD.
Total catch per fishery each year from 1952 to 2009. For MP/OM	Secretariat	31 May 10	The Secretariat will use the various data sets provided above together with previously agreed calculation methods to produce the necessary total catch by fishery data required by both the Management Procedure and the Operating Model.
Catch-at-length (2 cm bins) and catch-at-age proportions for OM	Secretariat	31 May 10	The Secretariat will use the various catch at length and catch at age data sets provided above to produce the necessary length and age proportion data required by the operating model (for LL1, LL2, LL3, LL4 – separated by Japan and Indonesia, and the surface fishery). The Secretariat will also provide these catch at length data subdivided by sub fishery (e.g. the fisheries within LL1).

⁷ The date is set 1 week before 31 May to provide sufficient time for the Secretariat to incorporate these data in the data set it provides for the OM on 31 May.

Type of Data to provide ¹	Data Provider(s)	Due Date	Description of data to provide
Catch at Age for MP	Secretariat	31 May 10	Cohort slicing by month of the 5*5 raised length data provided by members. The data used is the data for LL1 fisheries only. For LL1 fisheries where raised length data are not available (i.e. Korea, Philippines, Miscellaneous), the Secretariat will use Japanese length frequency data as a substitute in the same manner as conducted when producing the length frequency inputs for the operating model.
Global catch at age	Secretariat	31 May 10	Calculate the total catch-at-age in 2009 according to Attachment 7 of the MPWS4 report except that catch-at-age for Japan in areas 1 & 2 (LL4 and LL3) is to be prepared by fishing season instead of calendar year to better match the inputs to the operating model.
CPUE input data	Secretariat	31 May 10	Catch (number of SBT and number of SBT in each age class from 0-20+ using proportional aging) and effort (sets and hooks) data ⁸ by year, month, and 5*5 lat/long for use in CPUE analysis.
Tag releases / recoveries and reporting rates. For OM	Australia	31 May 10	The RMP tag/recapture data for the period 1991-1997 will be updated for any changed/new data in the database.
CPUE series.	Australia / Japan	15 Jun 10 (earlier if possible) ⁹	<p>5 CPUE series are to be provided for ages 4+, as specified below:</p> <ul style="list-style-type: none"> • Nominal (Australia) • Laslett Core Area (Australia) • B-Ratio proxy (W0.5) (Japan) • Geostat proxy (W0.8) (Japan) • ST Windows (Japan) • The number of 1*1 degree fished squares in each 5*5 degree square. These data will be accessed only by the Secretariat¹⁰. (Japan) <p>The operating model uses the median of these series.</p>

⁸ Data restricted to months April to September, SBT statistical areas 4-9, and the Japanese, Australian joint venture and New Zealand joint venture fleets.

⁹ When there are no complications, it is possible to calculate the CPUE series less than two weeks after the CPUE input data is provided. Therefore, if there are no complications, Members should attempt to provide the CPUE series earlier than 15 June.

Type of Data to provide ¹	Data Provider(s)	Due Date	Description of data to provide
Aerial survey index	Australia	31 Jul 10 (every attempt will be made to provide this at least 4 weeks earlier)	Estimate of the aerial survey index from the 2009/10 fishing season, including any estimates of uncertainty (e.g. CV).
Commercial spotting index	Australia	31 Jul 10	Estimate of the commercial spotting index from the 2009/10 season, including any estimates of uncertainty (e.g. CV).

¹⁰ These data will be temporarily accessed, under Japan's supervision, by the Secretariat to allow the Secretariat to verify calculation of the ST Windows CPUE series.